

**PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA  
COMMISSION DIRECTIVE**

ADMINISTRATIVE MATTER

☐

DATE

**June 17, 2021**

MOTOR CARRIER MATTER

☐

DOCKET NO.

**2019-224-E/2019-225-E**

UTILITIES MATTER

☒

ORDER NO.

**SUBJECT:**

[DOCKET NO. 2019-224-E](#) - South Carolina Energy Freedom Act (House Bill 3659) Proceeding Related to S.C. Code Ann. Section 58-37-40 and Integrated Resource Plan for Duke Energy Carolinas, LLC;

-and-

[DOCKET NO. 2019-225-E](#) - South Carolina Energy Freedom Act (House Bill 3659) Proceeding Related to S.C. Code Ann. Section 58-37-40 and Integrated Resource Plan for Duke Energy Progress, LLC - Staff Presents for Commission Consideration South Carolina Energy Freedom Act (House Bill 3659) Proceeding Related to S. C. Code Ann. Section 58-37-40 and Integrated Resource Plans for Duke Energy Carolinas, LLC and Duke Energy Progress, LLC.

**COMMISSION ACTION:****Motion #1:**

I move that the Commission find and conclude that the Integrated Resource Plan (IRP) with its six portfolios, in totality, combines to make the Integrated Resource Plan of Duke Energy Carolinas, LLC and Duke Energy Progress, LLC (the Duke Companies) submitted for Commission approval. This proposed Duke IRP, together with the modifications and clarifications provided by Duke, does satisfy the requirements of S.C. Code Ann. Section 58-37-40. This IRP, including its modifications and clarifications should be accepted and approved by the Commission. The Base Case presented by Duke "represents the most reasonable and prudent means of meeting the electrical utility's energy and capacity needs as of the time the plan is reviewed." [1]

As the agency charged with the responsibility of interpreting and enforcing Section 58-37-40 and Act 62, the Commission must "determine whether the integrated resource plan is the most reasonable and prudent means of meeting energy and capacity needs, the commission, in its discretion, shall consider whether the plan appropriately balances" additional factors. I further believe that there are differences between this docket and other IRP dockets, as well as in the approaches used by a company to prepare its IRP.

Having reviewed the evidence before the Commission, it is my opinion that the Duke IRP includes the requirements of Act 62 and that it represents a reasonable and meaningful resource plan.

The record is replete with testimony concerning whether the Company asserts an "appropriate" plan as opposed to a "preferred" plan. Whether a specific portfolio has been indicated as being "preferred" or "appropriate," in my view, is not part of the "plan"

contemplated under Act 62. These two words – “appropriate” and “preferred” -- are, in my opinion, functionally equivalent for the purposes of this proceeding. I would additionally note that, if one reads all of Act 62, the word, “preferred” simply does not appear. In fact, witness Snider does testify that the base plan is the appropriate portfolio. The statute is primarily an outline of all that the IRP must have or contain to be satisfactory. Similarly, I believe that our analysis and evaluation should focus on the elements emphasized and required by Act 62. Therefore, I move that the Commission accept and approve the Duke Companies IRP together with the modifications and clarifications provided in the Rebuttal Testimonies and Exhibits of the Duke Witnesses.

The integrated Resource Plan must be a working document that is updated as new information becomes available. The Commission understands that a preferred plan is one of many best management practices. While not specially required in Act 62, I move for approval of Duke’s IRP which is predicated upon Duke’s commitments to comply, and that Duke must comply, with the requests of ORS to change, modify, and enhance the future IRP updates and IRPs beginning with the 2021 Update due in September 2021 from the Duke Companies.

The approval of this IRP will be discussed in more detail in our order. I so move.

[1] S.C. Code Ann. § 58-37-40(C)(2) (Supp. 2020).

Continued on next page

PRESIDING: J. Williams

SESSION: Regular

TIME: 11:00 a.m.

	MOTION	YES	NO	OTHER	
BELSER	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Present in Hearing Room
CASTON	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Present in Hearing Room
ERVIN	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Voting via WebEx
POWERS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Present in Hearing Room
THOMAS	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Voting via WebEx
C. WILLIAMS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>Not Voting</u>	Absent from Hearings
J. WILLIAMS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Present in Hearing Room

(SEAL)

RECORDED BY: J. Schmieding



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**COMMISSION ACTION:****Motion #2:**

I would move that the Commission find that the Companies did NOT prove by the preponderance of the evidence that their 2020 IRPs are the MOST reasonable and prudent means of meeting their energy and capacity needs at the time of review. Therefore, the Companies should modify their 2020 IRPs to identify a preferred portfolio from the six plans presented in their IRPs.

**In addition, I move that the Companies shall modify their 2020 IRPs in the following manner:**

- Prepare additional load forecast scenarios (such as high and low scenarios.), as required by Act 62.
- Make changes to its development of Effective Load Carrying Capabilities (ELCC) and revisions to its capacity expansion modeling that incorporates those ELCC values.
- Remodel its portfolios using natural gas pricing forecasts that rely on market prices for eighteen months before transitioning over eighteen months to the average of at least two fundamentals-based forecasts, as recommended by CCEBA Witness Lucas.
- Include third-party solar Purchase Power Agreements (PPAs) priced at \$38/MWh as a selectable resource.
- For purposes of modeling solar PPAs as a selectable resource, the Company shall assume a contract term of at least 20 years with operational characteristics identical to CPRE

projects.

- Include sensitivities in the modified IRP for PPA pricing at \$36/MWh and \$40/MWh.
- Modify its IRP and adjust its IRP modeling to account for the effect of the December 2020 Investment Tax Credit extension by Congress for solar development.
- Adjust its modeling as suggested by witness Lucas to take into account the increasing market saturation of single-axis solar systems in the DEC and DEP territories.
- In its Modified IRP Duke shall use the National Renewable Energy Laboratory's Annual Technology Baseline (NREL ATB) Low figures for battery storage costs.
- In its Modified IRP and next IRP Update, Duke shall assume a 750 MW annual limitation on the interconnection of solar and storage resources.

**I further move that all IRP Updates shall include the following:**

- Additional load forecast scenarios, such as high and low scenarios that account for economic and other types of uncertainty or risks.
- Use of the Utility Cost Test (UCT) when developing Energy Efficiency/Demand Side Management (EE/DSM) scenarios and savings projections in its future IRPs, IRP updates and market potential studies.
- Collaboration with the EE/DSM Collaborative to identify a set of reasonable assumptions surrounding 1) increased market acceptance of existing technologies and 2) emerging technologies to incorporate into EE/DSM saving forecasts.
- Evaluation of high and low EE/DSM cases across a range of fuel and carbon dioxide (CO<sub>2</sub>) assumptions to better understand what level of EE/DSM should be implemented if fuel costs rise or higher CO<sub>2</sub> costs are imposed.
- A study of the relationship between extreme winter weather load and develop more sophisticated methods for estimating the potential impact of future extreme winter weather on load.
- A comprehensive coal retirement analysis to inform development in their 2022 IRP.
- An assessment of the risks of natural gas transportation and delivery, including rejection of cancellation of pipeline projects; and quantitatively address the potential impacts of transport and delivery risks of natural gas availability and pricing.
- A limitation that is analytically justified, nondiscriminatory, and accounts for the expected benefits of queue reform and the possibility of making further investments in the Companies' capacity to interconnect new generation if the Companies elect to impose any limitation on interconnections.
- A solar purchase power agreement ("PPA") resource option as a sensitivity.

**I also move that the Companies shall implement all commitments made in response to ORS's recommendations, as described in the Rebuttal Testimony of the Companies' witnesses, and as set forth in Table 1 and Table 2 of ORS Witness Hayet's Surrebuttal Testimony.**

**In addition, I move that the Companies shall include in all future IRPs the following:**

- A technical appendix that more fully describes each of the models, presents the statistical results and shows the individual energy and peak load forecast results that were actually developed.
- A more detailed discussion of the specific methodology used to develop the synthetic loads for extreme low temperature periods.
- Further development of the methodology to model the effects of extreme low temperatures on winter peak load.
- Continued engagement with stakeholders to identify additional cost-effective EE/DSM programs to achieve greater levels of energy savings.
- Continued engagement with stakeholders to determine if additional EE/DSM sensitivities could be modeled, including exploration of other approaches for deriving the low EE/DSM forecast.
- A review of their natural gas price forecasting methodology and investigation of alternative approaches.
- Enhanced coal retirement analysis methodology.
- Corrected capital and variable cost assumptions for combustion turbine and battery storage resources and re-evaluate the reasonableness of the assumptions.
- An additional solar generic resource option modeling assumptions that reflects the kind of solar purchase power agreements ("PPA") prices that may be available in the market.
- Further investigation regarding solar capacity values and solar plus battery energy storage capacity values, with stakeholder input, discussed as part of a stakeholder engagement process.
- Minimax regret analysis and other risk analyses.
- Revised calculation of the average retail rate impact on customers so that the assumptions and methodologies are consistent with the calculations of the Present Value Revenue Requirement (PVRR), except for the levelization of the capital-related costs.
- Details regarding the status of the Southeast Energy Exchange Market ("SEEM"), details regarding important current and planned activities, and information regarding the monetary benefits that have been or could be achieved by implementation of the Southeast Energy Exchange Market (SEEM). I would so move.

PRESIDING: J. WilliamsSESSION: RegularTIME: 11:00 a.m.

	MOTION	YES	NO	OTHER
BELSER	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Present in Hearing Room
CASTON	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Present in Hearing Room
ERVIN	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Voting via WebEx

POWERS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Present in Hearing Room
THOMAS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Voting via WebEx
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J. WILLIAMS	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Present in Hearing Room

(SEAL)



RECORDED BY: J. Schmieding